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Vocational Education in Agriculture

A comparative study of the administration of the Smith-Hughes Act for the promotion of Vocational Education in Agriculture

by

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Written in connection with a course in Agricultural Education 202 in the University of California, during the Fall Semester 1919

Prepared under the Direction of Professor F. L. Griffin, Associate Professor of Agricultural Education

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1. Brief digest of Federal law, the Smith-Hughes Act for the Promotion of Vocational Education, with special reference to the fundamental conditions and requirements of Agriculture.

(The Smith-Hughes Act signed February 23,1917.)

"An Act to provide for the promotion of vocational education; to provide for co-operation with the states in the promotion of such education in agriculture and in the trades and industries; to provide for co-operation with the states in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure."

A. Financial provisions of the Act.

1. For the purpose of co-operating with the states in paying the salaries of teachers, supervisors, or directors of agricultural subjects, the following appropriations are made: For fiscal year, ending June 30, 1918, $500,000; fiscal year 1919, $750,000; fiscal year 1920, $1,000,000; fiscal year 1921, $1,250,000; fiscal year 1922, $1,500,000; fiscal year 1923, $1,750,000; fiscal year 1924, $2,000,000; fiscal year 1925, $2,500,000; fiscal year 1926 and annually thereafter, $3,000,000. Sum allotted to each state in proportion which its rural population bears to the

total rural population of the U. S. Proviso: No state shall receive annually less than $5000, prior to 1923, nor less than $10,000 after that year; deficiency appropriations to provide this "minimum allotment".

2. For the purpose of co-operating with the states in preparing teachers, supervisors and directors of agricultural subjects and the teachers of trade and industrial and home economics subjects the following appropriations are made: For the fiscal year ending June 30, 1918, $500,000; fiscal year 1919, $700,000; fiscal year 1920, $900,000; fiscal year 1921 and annually thereafter, $1,000,000. Sum allotted to state in proportion which its population bears to total population of U. S. Proviso: No state shall receive annually less than $5,000 annually prior to 1919, nor less than $10,000 after that year; deficiency appropriations to provide this "minimum allotment."

3. The sum of $200,000 is appropriated for the administration of the act, for the payment of salaries of officers and assistants, etc. Board may allot any part of this appropriation to any U. S. Department or bureau for the purpose of making any study or investigation contemplated in this act.

4. Appropriations herein made to be expended only for salaries of teachers, supervisors, or directors, as herein provided. The cost of instruction supplementary to the instruction in agricultural subjects provided for in this act, necessary to build up a well-rounded course of training, shall be borne by the state and and local communities, and no part of the cost thereof shall be borne out of the appropriations herein made. Appropriations conditioned that the state or local community, or both, shall expend an equal amount for salaries.

5. In order to secure the benefits of this act, state shall, through legislative authority thereof, accept the provisions of this act, and designate or appoint a state board, consisting of not less than three members, and having power to co-operate with the Federal Board of Vocational Education. After June 30, 1920, no state shall receive any appropriation for salaries of teachers, supervisors, or directors of agricultural subjects until it has taken advantage of at least the minimum amount appropriated for the training of teachers, supervisors, or directors of agricultural subjects.

6. To secure the benefits of appropriation, State board "shall prepare plans showing the kinds of vocational education for which it is proposed that the appropriation shall be used; the kinds of schools and equipment; courses of study; methods of instruction; qualifications of teachers; and, in the case of agricultural subjects, plans for the supervision of agricultural education." Such plans to be submitted to the Federal board. State board shall report annually to the Federal board on or before September 1.

7. In order to receive the benefits of this act, State board shall provide in its plan for agricultural education that it shall be under public supervision or control; that its purpose shall be to fit for useful employment; that it shall be of less than college grade and designed for persons over 14 years of age; that the state or local community, or both, shall provide plant and equipment as determined upon by State board, with approval of Federal board; that amount expended for any school or class shall not be less than amount fixed by State board with approval of Federal board, for such schools or classes in the state; that such

schools shall provide for supervised practice in agriculture for at least six months per year; that teachers shall have at least minimum qualifications determined by State board with approval of Federal board.

II. General discussion of the operation of the act in the various states.

A. Conditions, standards requirements and methods that seem to be more or less uniform in the different states, including the state plan of organization for administration.

Practically all states have now made provision for the supervision and administration of the act by providing, in addition to the State Board of Vocational Education positively required by law, a State Director of Vocational Education, a State Supervisor of Agricultural Education, a State Supervisor of Industrial Education, and a State Supervisor of Home Economics Instruction.

These officers are the administrators of the Act in the state through power delegated to them by the State board. They make investigations and surveys, promote the establishment of vocational classes, approve or disapprove schools applying for aid, supervise instruction, hold conferences with vocational teachers, supervise the teacher-training work, prepare the state annual report to the Federal board, and co-operate with all agencies in carrying out the policy of the State and Federal boards with regard to vocational educa-

tion.

It is required that vocational education, in order to be approved for aid, must:

1. Be given under public supervision and control.
2. Have as its definite aim to fit for useful employment.
3. Be designed to meet the needs of persons over fourteen years of age.
4. Be of less than college grade.
5. The teacher of agriculture must be hired for 12 months.
6. Provide for, at least six months supervised practice work.

In twenty of the twenty-three states, given special attention in this study, the project method is used in securing the required practice work. In addition to the twenty states that require the project as an integral part of the course, Missouri recommends the Class "A" project which is the method of making the individual project the controlling factor in choice of subject matter for study in the allied subjects of the year's work. Seven of the states referred to require projects of this class "A"

type. Thirteen states require project work of the class "B" type, a type of practical work; but where the method is not to group the course about the project. In this method the project might be in a line of farm work that bore no relation to the agricultural subjects being studied at school. The state of Oregon requires type "D" of practice work, consisting of six months farm practice. They recommend home project work of type "B", however.

Twelve of the twenty-three states provide specifically for transportation for the instructor at the district expense. This provision is recommended; but not required in several other states.

The states uniformly require laboratory equipment costing at least $250. A considerable number have set this minimum at $500. All states require, as minimum preparation of instructors, at least two years of practical farm experience, graduation from a standard Agricultural College, and sympathy with rural life. For directors and supervisors the same standard plus three years successful teaching experience of Agriculture is usually required. The four year course is now in general operation, although in some of the smaller schools it is advisable to combine the work of the first

year with the third, and the second with the fourth in order not to waste the instructor's time; and operate with a minimum number of teachers.

B. Brief mention of original methods, and peculiar conditions and standards.

There are two peculiar features of the Iowa plan. It provides that, in cities over 5000 in population, the local Board of Education shall appoint a local advisory committee for vocational education, composed of persons experienced in Agriculture, Industry, Home Economics, or Business. The other feature is that the instructor must give his entire time to an agriculture class of 10 members; and under no circumstances may include more than 30 in his instruction.

All of the states studied, except Arizona, set a minimum salary to be paid instructors of Vocational Agriculture. In most cases this minimum is quite liberal. There is a variance for white teachers from $1200 to $1500 as annual state minimum. A peculiarity of the Georgia plan is the establishment of a minimum for negro teachers of $500 per year. Florida pays negro teachers of Agriculture $600 per year, and white teachers $1500 minimum. A strong feature

of the Florida plan is the detailed completeness of the teacher-training course. The Georgia plan gives unusual attention to field supervision, a very desirable feature. Georgia has several agricultural schools under state control. The white schools seem to be of high school grade, while the negro agricultural schools appear to be of elementary grade.

The suggested courses of study for Kentucky, Montana, and Tennessee might be adversely criticized, as courses in Vocational Agriculture, because of the unusual proportion of attention given to classical English. Each provides for four years of standard English. A desirable feature of the bulletin edited by the Tennessee Department is the helpful and comprehensive bibliography for the use of teachers.

Space does not permit all the desirable and undesirable peculiarities of the situations and plans of the various states. Something should be said, however, in regard to the practice work which is being done in the various states. As was previously mentioned (in II A), practically all the states are using some form of the project method. One feature of the home project work in Colorado is the method of giving credit. One unit of credit is given for a success-

ful project carried out to specifications. This is on a basis of 50% for field work, 25% for records, and 25% on exhibit at County Fair. A grade of 75% is required for credit.

The North Carolina plan lays more than the usual stress on the school farm, recommending from 50 to 100 acres of land, stocked up with the best grade of animals etc. In North Carolina the failure of a teacher of Agriculture, who has the operation of a school farm, to provide a good garden, both Summer and Winter, should be considered just cause for withholding State and Federal appropriations. The requirement in Oregon is for six months farm practice; but the project is given a recommendation as practice work.

The work in Massachusetts is featured by the unusually successful development of the home project method of instruction. There the instruction is really grouped about the project. The allied work of the student is correlated with his project. The work in that state has been developed under the direction of Prof. Stimson who is the author of an interesting book, " Vocational Agricultural Education, by the Home Project Method. "California's plan is character-

ized by a strict adherence to the spirit as well as to the letter of the Federal law. The emphasis is strongly on the practical. The class "A" type of home project predominates in the course. The course of study is featured by the emphasis on the farm application of subjects. One feature peculiar to the Utah plan is their variety of plans for supervised practice work. They require home projects; and provide four types of projects:

(1) Individual ownership Method. (2) Individual Lease Method. (3) Apprenticeship Method. (4) Home Employment Method.

III. Studies of Representative States

A. List of representative states included.

Arizona

California

Connecticut

Colorado

Florida

Georgia

Iowa

Illinois

Kentucky

Massachusetts

Missouri

Montana

Michigan

Nebraska

New York

North Carolina

Oregon

Oklahoma

South Dakota

Texas

Tennessee

Utah

Virginia

Questions Answered in the Following Summarized Study of Agricultural Education in the Various States under the Smith-Hughes Act, 1919

1. Agricultural Schools; or High School Departments?

2. Is plot of ground required at the school?

3. What is minimum requirement for laboratory equipment?

4. What is minimum enrollment required for approval; and aid?

5. Percentage of salaries of instructors paid by State? Community?

6. Is "Home Project" method required?
   If so, does it-------
   (A) Control schoolroom instruction by "Correlation method",
   (B) Is it independent of class instruction,
   (C) Is it of the "farm management" type; or
   (D) Is the farm experience system used?

7. Are instructors hired for twelve months?

8. Give the length of the course in years? What is the nature of the course for each year?

9. What practical experience and educational qualifications are required of instructors?

10. What provision is made for supervision of teachers, courses, equipment, buildings, etc.?

11. What provisions for teacher-training; and professional improvement?

12. Must the board of education provide transportation for the instructor in his work of home project supervision, and other field work?

Brief summary of any unusual features of State Plan.

Arizona

1. Agricultural schools of High School grade.

   High School Departments.
   Agriculture departments of secondary school grade conducted by Normal Schools.
   Short courses from one to eighteen weeks in any of the above.
   Part time and evening classes in any of the above.

2. Inferred; but not required. Recommended for experimental work.

3. Recommended $500 with $200 additional for farm mechanics shop. $5 per pupil for materials.

4. Not specified.

5. 50% federal. 50% state money.

6. Yes. Class "B" type of home project.

7. Yes. (One month vacation.)

8. One to four years.

9. Two years practical experience after 12 yrs. of age. Graduate from standard Agricultural College.

10. State Director of Vocational Education. Itinerant teacher-training provided for. Prof. of Agriculture secured for part-time for work.

11. One month during dull season to be given teacher for professional improvement. Training Course at University

of Arizona.

12. Not specified.

One feature of Arizona law was failure to set minimum salary for instructors. Other features pretty carefully worked out.

California

1. High School Departments.

2. Yes. Plot sufficient for experimental purposes.

3. Present science and manual training laboratories plus "slight modifications". Each district must expend for each class maintained (including teachers' salaries, overhead, etc.) not less than $1800 per year.

4. Not specified.

5. Federal and State pay for first teacher unit of instruction $1000
Federal and State pay for second teacher unit of instruction $700
Federal and State pay for third teacher unit of instruction $500
Federal and State pay for fourth teacher unit of instruction $300

6. Required. Instruction, class A-Project controls classroom instruction by correlation method.

7. Yes. Minimum of $1500 for applied, and $1200 for supplemental subject instruction.

8. One year at first, increasing to four years as soon as sufficient number of prepared pupils desire the work. 1st yr- Farm English, Science, Math., Hygiene & Sanitation. 2nd - Farm Science, Math., Citizenship, English. 4th - Farm Econ. Farm project each year.

9. Must be experienced in farming; and hold special certificates in vocational type of Agriculture.

10. One of special instructors must be in charge of department. Commissioner of Vocational Education. State Supervisor of Agricultural Instruction. State Director of Agriculture Teachers Training.

11. Agriculture Club must be organized wherever an approved and aided course is located. Arrangements may be made with State Board whereby teachers may visit other schools or classes provided for the advanced training of teachers.

12. Not specified.

California's plan is characterized by a strict adherence to the spirit as well as the letter of the federal law. The emphasis is strongly on the practical. The plan requires at least eight weeks practical work on a farm before the pupil enters on the third year of the course and sixteen weeks before the fourth year may be started. The emphasized point in the qualifications of in-

structructors is that they should have practical farming experience.

The course of study is characterized by the emphasis on the farm application of subjects. There are but 2½ units of ordinary academic work offered - 2nd yr. English ½, Citizenship ½, 3rd English ½, Democracy ½, 3rd Dev. of U. S. ½, Farm projects and Farm mechanics 8 units, 2 units (½ of course) each year.

Connecticut

1. High School departments or Agricultural Schools.
2. Not specified.
3. "At least one room properly equipped" approved by the High School Inspector. At least $5.00 per pupil in course per year for supplies.
4. Not specified.
5. Federal fund 50% as far as it will reach. "For every dollar of federal funds, the state will spend many more than the same equity."
6. Yes. Class "B" project method.
7. Yes.
9. Two years practical experience; and B. S. in Agriculture. Must be a man 21 years of age. Citizen of U. S. 12 hrs. practice teaching.

10. State Supervisor and Director. Supervisor - 5 yrs. Ag. teach. exp.

11. State Supervisor will assist and supervise teaching in the field. Teachers will be allowed suitable vacation.

12. Not specified.

Colorado

1. High School departments, only.

2. No.

3. Suitable room, cabinets, reference books, bulletins, farm papers, laboratory equipment of $500, and per capita maintainance fee $5.

4. 10, if 25% from country - otherwise 20.6 for each class aided.

5. 50% federal. 50% local district.

6. Yes. Class "B" home project work.

7. Yes.

8. Four Year course.
   (See III B for detailed course of study).

9. Graduates from Agricultural Colleges. Practical farm experience.

10. State Director of Vocational Education.

11. Teacher-training provided for at Colorado Agricultural College, Fort Collins, Colorado.

12. Yes.

One feature of the home project work in Colorado is the method of giving credit. One unit of credit is given for a successful project carried out to specifications. This is on a basis of 50% for field work, 25% for records and 25% on exhibit at county fair. 75% required for credit.

An unusual project was developed here in the tractor project. A careful record was kept of hours of work each day, work accomplished in current price terms, initial and final value of tractor, cost of fuel and repairs, wages of operator; and also the various wages earned by tractor at various kinds of work.

Net gain for season = $368.92

Florida

1. Departments in (a) Rural Graded, (b) Approved High Schools, and (c) limited number of negro schools.

2. Implied in III J 3 of Bulletin; but not prescribed.

3. $200 - $500 laboratory equipment.

4. Not prescribed.

5. 50% of salaries of Instructors by state. 50% federal funds.

6. Yes. Class "A". "The method of instruction must be based on--

   (a) Supervised projects in vocational agriculture".

7. Yes.

8. Two to four years.

Course of Study

"The course of study for vocational agricultural departments shall consist of not less than 2 nor more than 4 years work; 90 minutes a day of which time shall be devoted each year to instruction in vocational agriculture plus an equivalent amount in practice, including supervised projects and study and general instruction in agriculture and projects".

9. Two years practical experience after the age of twelve. Must be a graduate from a state Agricultural College; or its equivalent. The minimum age shall be 21 years. One full year's course in education; or its equivalent. One half year's teaching experience of Agriculture (May be practice-teaching at University of Florida). After July 1, 1921, all applicants for positions as teachers of Vocation Agriculture shall have completed the four year's course in Vocational

Agricultural Education as prescribed by the University of Florida; or its equivalent.

10. Experience of Supervisor must be two years practical farming after 13 years of age. Must have three years of teaching experience (two being in Agriculture). Must be at least 25 years of age. Must be a man. A graduate of an Agricultural College; or its equivalent. Supervision shall, temporarily be carried on by two State Rural School Inspectors.

11. Teacher-training course to be given at University of Florida. To be given only to those having the necessary practical experience. To consist of the following division of time:

(a) One-fifth of time to courses in Education (teaching of AG.)

(b) Three-fifths time to Agricultural subjects.

1. Agronomy (One month given instructor for professional improvement.)
2. Farm Machinery and Motors
3. Animal Husbandry
4. Dairy Husbandry
5. Horticulture(Plant Propagation and Breeding, Trucking, Floriculture, Citrus and subtropical fruit culture, Fruit harvesting, judging, and marketing, and) Fruit Pests and Insects. Forestry.

(c) One-fifth of time to appropriate liberal art subjects.

12. Does for State Supervisors; not instructors.

One peculiar feature of the Florida law is the establishment of a minimum wage of white teachers at $1500; and negro teachers at $600. As a whole, the Florida plan is promising. They have gone farther than any other state in the detailed completeness in which they prescribe the teacher's training course.

Georgia

1. All day agricultural schools in special State Ag. Schools, State Negro Schools, Vocational Ag. Departments in High Schools for whites, Vocational Ag. Departments in local Negro schcols. Part time schools may be established.
2. For State Ag. Schools 200 acres of land. State Negro Schools- 50 acres of land. Others not required.
3. A State Ag. School - $800.00, State Negro School $300.00, High School for whites - $450.00, Negro school $225. $2.50 per pupil for up-keep.
4. None.
5. U. S. 50%. Local District and State 50%.

6. Emphasized. Most of project work seemed to be of class "B".

7. Yes.

8. Two required. Four recommended. "Course of study shall consist of technical instruction, shop practice, supervised practice, related work and cultural training. 45-minute period per day shall be given to related sciences."

9. Men only, 21 yrs. old. Two years adult farm experience (after 12 yrs. of age). After 1921 all teachers must have graduated from four years college course for Vocational Agriculture teachers; or its equivalent.

10. State Supervisor assisted by General High School Inspector. State Supervisor must have two years teaching of Ag. in addition to regular instructor standard. Thorough system outlined.

11. State Supervisor gives half time to teacher-training in field. One month professional improvement.

12. Yes.

The Georgia plan provides for satisfactory supervision by state and local instructors. One of the states to make furnishingof local instructor

with transportation compulsory. Peculiar features of the Georgia problem are the negro schools. They seem to have several State Agricultural Schools for whites and separate ones for negroes. They have white high schools; but mention negro schools, as if they were for grades only. Difference in pay for white and negro instructors; and exclusion of lady teachers of Agriculture are also features. Provides for the establishment of part-time schools in Agriculture.("May be established").

Iowa

1. Schools, departmental or classes.
2. Yes. Plot for demonstration purposes.
3. Not less than $500.00 Library. At least $75 per yr. for incidental expenses.
4. Ten.
5. Federal 50%. Local district 50%.
6. 18 weeks to four years. Evidently class "B". Home project, as such, not specifically mentioned. Stress upon "Farm Practice".
7. Yes.
8. Not specified. Provision in Iowa law for short courses for young farmers, also for evening classes.

50% of time to be spent in farm practice occupations, and related material.

Remainder of time spent in study of such subjects as: English, History, Citizenship, Government, Mechanical Drawing, Economics, Hygiene, and physical training. Language and Mathematics elective.

9. Two years continuous practical experience since 14 years of age. Sympathy with farm work and rural life.

Graduate of four year course in Agriculture, including farm mechanics in a standard Agricultural College.

From 15 to 20 hours of Agricultural Education and Psychology. One year of supervised teaching.

10. Director of Vocational Education and Supervisor of Vocational Agricultural Instruction gives 1/10 of time to teacher training and 9/10 of time to supervision in the field.

11. Provisions for teacher-training at Ames Agricultural College are unsurpassed. Provision is made in the law that a portion of each year be allowed the

instructor for professional improvement.

12. Yes. It is suggested that the most satisfactory method is to pay instructor additional salary with the understanding that he furnish his own car.

There are two peculiar features to the Iowa Plan. One is particularly worthy of consideration. It provides that, in cities over 5000, the local Board of Education shall appoint a local advisory committee for Vocational Education, composed of persons experienced in agriculture, industry, home economics or business. The other feature is that a man must give his entire time to an agriculture class of ten; and under no circumstances may include more than thirty in his instruction.

Illinois

1. High School departments.

   Normal School departments of secondary grade.

   Short term courses in the above.

   Part-time and evening classes in the above.

2. No.

3. $350 to 500 with $200 additional for farm mechanics.

   $5.00 per pupil per year for maintainance.

4. Not specified.

5. 50% federal. 50% Local district.

6. Yes. Home project of class "B".

7. Yes.

8. One to four years. Also short courses.

Course of Study recommended

1st Yr: Farm Crops, Soils and Horticulture, with related Business English.

2nd Yr: Animal Husbandry, with related Farm Arithmetic.

3rd Yr: Farm Mechanics with related Shop Work.

4th Yr: Farm Management with related Farm Bookkeeping Business.

Supervised Farm Project each year.

9. Two years practical farm experience after age of 14. Graduate from standard four year course in Agricultural College, preferably Illinois University. In addition, the Director must have had at least two years successful teaching experience in Agriculture.

10. Supervisor of Agricultural Education. Plan very complete.

11. Before graduation at the University must have one semester of practice teaching under supervision. One month each year to be given to instructor for recreation and professional improvement. Teacher-training under Voc.Ag. Supervisor)

12. Yes.

Teacher training and supervisor plans strong features. Lack of stress on home project work weak point.

Kentucky

1. High School departments, Short courses, Part-time schools, night classes and Consolidated Schools.
2. Yes, either at school; or at home. Recommended to be at school.
3. $250 laboratory, $50 library. $2.00 per pupil per year for supplies.
4. Not specified.
5. 50% federal funds. 50% local funds.
6. Yes. Class "B" type.
7. Yes.
8. Either two or four year courses.

Two Year Type Course

First Year

First Semester	Second Semester
Rhetoric and Composition	Rhetoric and Composition
Mathematics-Algebra	Mathematics-Algebra
Farm Animals	Farm Crops, Animals
Home Project Work	Home Project Work

Second Year

First Semester	Second Semester
Literature and Classics	Literature and Classics.
Mathematics or History	Mathematics or History
Soils and Crops	Soils and Crops
Home Project Work	Home Project Work

(For Four Year Course of Study see III B).

9. Graduates of a standard College of Agriculture or graduates from scientific courses of standard colleges who have had three years practical experience since the age of twelve. All must have had a tenth part of the course in Education.

10. Director of Vocational Education to have an assistant to supervise the work in agriculture. He must have in addition to the requirements of teachers, two years successful teaching experience in Agriculture; and one year in a supervisory position.

11. From four to six weeks each year shall be allowed the instructor for professional improvement.

For white teachers the training will be given at the University of Kentucky in the Agricultural department. For colored teachers the work is offered in Kentucky Normal and Industrial Institute.

Itinerant teacher-training is provided for by visits by the Assistant Director, by pamphlets and correspondence.

12. No.

The courses of study smack noticeably of the old classical traditions. The project work does not appear to be given the attention accorded it by some state plans.

Massachusetts

1. County Agricultural Schools and High School Departments.
2. No. Many have them, however.
3. Adequate.
4. Not specified.
5. State pays 2/3 the salaries of instructors; and half the cost of maintainance of County Agricultural Schools.
6. Strongly emphasized. Class A, Home Project controls instruction.
7. Yes.

8. Four years. The work of each year is centered around that year's project of the individual. While some attempt is made to interest groups in similar projects during a given season, the work is individual tutoring in nature.
9. Three years practical farming. Must also have collegiate and professional training.
10. Vocational supervisors and Directors.
11. Teachers have one month for recreation and two months for professional improvement each year. Are hired for twelve months.
12. Not specified. Implied.

The work in Massachusetts is characterized by the featuring of the "home project". It also has a very well worked out system for the professional improvement of its instructors. Community work, club work, a considerable development of the County Agricultural School, and thorough supervision of the work is noticeable.

Missouri

1. High School Departments. Schools of Agriculture.
2. Yes.
3. Sufficient laboratory equipment for testing milk,

grafting trees, incubating eggs, testing soils, making butter etc. Library and farm shop.

4. Not designated.
5. State in Sec.(1) proceedings of Fiftieth General Assembly matches dollar for dollar of Federal funds appropriated to Missouri.
6. Strongly recommended. Class A instruction to be controlled by project on hand. "Must be closely correlated, taught as unit".
7. Yes.
8. Two years. Plan to increase to three year course in 2nd class High Schools and four years in 1st class High Schools.
   1st yr. -Eng.1,Math.1,Farm Mech., and Gen.basic course in Agr. 2,
   2nd yr. -Eng.1,Civics 1,Farm Crops,A.H.,Soils and Hort. 2.
9. Four year college - 120 hrs - 40% agriculture -20% related. 15% education. Two years practical farm experience. (Less may be accepted pending time for adjustment).
10. State Director of Vocational Education. State supervisor of Agricultural Education. Qualifications

for supervisor are same as for instructor plus at least two years teaching of agriculture.

11. "Will be given time off for professional improvement".

12. Yes. In addition the amount of $5.00 per pupil must be set aside to provide for necessary materials, expenses, etc.

1917-18 The work in the Missouri schools seems to be yet in the experimental stage; and has far to go to come up to standard. The words of the State Director of Vocational Education show something of the uncertainty with which they have so far attacked the problem. He says " Our motto this year should be 'Let us do our best under the conditions as we find them' " Only one school in the state has instruction in the second year of Agricultural course at present.

1919-20 Shows a careful plan and liberal provisions and appropriation. Although slow to start, Missouri shows fully up to standard for 1919-20.

Montana

1. Departments in County High Schools and approved High Schools.

2. Not prescribed.

3. Laboratory equipment costing at least $350, plus $200

for equipment for farm mechanics. $125
library - $50 per year new books.

4. Eight to twelve is minimum.
5. 50% federal funds. 50% state. Due to shortage of funds thus far the combined aid has totaled about 60% of salaries of teachers of Vocational Agriculture.
6. Yes. Class "A".
7. Yes.
8. Four year course of study. Following course recommended: (See III B)
9. Two years practical farming. Age 21, at least. Four year course in standard Agricultural College. Meet other state requirements for certification by state Board of Education.
10. State Director of Vocational Education. State Supervisor of Agricultural Education. Supervisor must assist in organizing new courses, inspect the work of teachers; and report annually.
11. A very definite course for teachers of Vocational Agriculture is prescribed, which includes "practice teaching". This course is offered

at the State School of Agriculture and Mechanic Arts at Bozeman. The Pres. of the college is director of teacher-training; and also must conduct itinerant teacher-training courses.

12. Yes.

The Montana plan seems carefully planned. It shows a more detailed study than most of states, in so far as available information indicates. Similar to the Iowa Plan, it features the Short Course. In its Course of Study an unusual emphasis is laid on the subject of English, one-fourth of the high school course being devoted to the study of English.

Michigan

1. Both. High School courses; and County Agricultural Schools.
2. Yes. Size not specified.
3. $100.00 per year for upkeep.
4. 12 students.
5. State pays for teacher-training, 50%, U. S. 50%.
   " " " teachers 25%, U.S. 50%, Local district, 25%.
6. Emphasizes "Home Project". Home project of class "B".

7. Yes.

8. Three required. Four recommended. In County School of Agriculture two years required.

9. Two years practical experience. Graduate of Agricultural College with at least 10 hours education credits.

10. State supervisor of Agriculture, appointed by State Board.

11. Portion of vacation time must be spent in study.

12. Yes.

Farm project must require at least 144 hours. Students' contract must also be signed by parent or legal guardian in order to make them legal. Close supervision, well prepared instructors, and specific provision for transportation mark the Michigan law.

Course of Study by Years

1st Plant life and its applications/ 1 sem.
Mech.Drawing and farm carpentering / 1 sem.

2nd Farm crops and horticulture/ 1 sem. each.

3rd Animal husbandry/ whole year.

4th Soils and fertilizers/ 1 sem.
Farm management and farm mechanics/ 1 sem.

(See III B for more detailed Course of Study)

7. Yes.

8. Three required. Four recommended. In County School of Agriculture two years required.

9. Two years practical experience. Graduate of Agricultural College with at least 12 hours education credits.

10. State supervisor of agriculture, appointed by State Board.

11. Portion of vacation time must be spent in study.

12. Yes.

Farm project must require at least 144 hours. Students' contract must also be signed by parent or legal guardian in order to make them legal. Close supervision, well prepared instructors, and specific provision for transportation mark the Michigan law.

<u>Course of Study by Years</u>

<u>1st</u> Plant life and its applications / 1 sem.
Mech. Drawing and farm carpentering / 1 sem.

<u>2nd</u> Farm crops and horticulture / 1 sem. each.

<u>3rd</u> Animal husbandry / whole year.

<u>4th</u> Soils and fertilizers / 1 sem.
Farm management and farm mechanics / 1 sem.

(See III B for more detailed Course of Study)

Nebraska

1. High School Departments (A) County High Schools, (B) Consolidated schools, (C) Rural High Schools, (D) City High Schools "It is proposed that such schools may be reimbursed from federal funds for the salaries of vocational agriculture".
2. No. Home project preferred. Plot for experiment at school approved.
3. Annual report must be made to state department, showing just what equipment, in good condition, is on hand. For from 12 to 20 pupils -- $250 to 500. $200 to 250 for farm mechanics. $5.00 per pupil per annum for maintainance expense of supplies.
4. Not specified.
5. 50% federal. 50% state support.
6. Yes. Class A instruction correlated with the Home project.
7. Yes.
8. Four years. Agriculture work of four years selected from -- Gen. Agriculture, A. H., Crops and Soils,

Farm Shop Work, Poultry Husbandry, Dairy Hus., Hort., Farm Accounting, Farm Management. ½ unit per yr. allowed for field work on project. (Detailed course III B)

9. Practical experience, education in agriculture and teaching experience desired in instructor. Laboratory work and field project work strongly emphasized. Four year Ag. College graduate with two years practical farm experience.

10. State Director of Vocational Education and State Supervisor of Agricultural Instruction. "He shall assist in training teachers in service by conferences, correspondence, publications, and personal inspection of work done".

11. All teacher-training to be at University of Nebraska under the supervision of State Supervisor of Agriculture and general supervision of the State Vocational Director.

12. No.

Material at hand shows Nebraska to have very thorough system of state supervision. Forms of reports required by state department of special interest. State Supervisor very frank in stating that he feels that previous work in the state

has not been of the kind desired. Seems to promise efficient work in that line when organization gets under way. He emphasizes the need for real "home project" work.

New York

1. High School Departments; and Schools of Agriculture.
2. Power given to board to purchase.
3. "Adequate".
4. 15.
5. 2/3 of salary not exceeding $1000.
6. Emphasized. Apparently of class A. "Practical work should correlate with suitable technical teaching".
7. Yes.
8. Not specified. Work to be adapted to local community. In addition to practice work, "they should teach mathematics, drawing, science and related subjects, to an extent, and in a way practically useful to the pupil".
9. Special Certification by Commissioner of Education. Specially trained. Two year graduate from profession-

al school; or extra special practical qualifications.

10. State Commissioner of Education.

11. State Agricultural Schools at St. Lawrence University, Alfred University, and Morrisville may give courses for the training of teachers in agriculture.

12. Not indicated.

Peculiarity of New York law in not making employment of all instructors for 12 months. However, makes difference in appropriation. One-third of teacher's salary employed for 36 wk. (if an additional teacher), two-thirds of first teacher's salary, and an extra $200 if this teacher is employed for 12 months. Has three Agricultural Teacher-Training Schools. (Pay status as given in bulletin of 1913)

North Carolina

1. High School departments. (8th.-9th.-10th.-11th.grades)
2. School farm of from 50 to 100 acres recommended.
3. Not specified. Recommended that most of equipment be made at school. Room with movable tables and chairs required.
4. Not specified.

5. 50% Federal funds. 50% State and local community.

6. No. Either home projects or work on the school farm is required. Projects offered are of type "B".

7. Yes.

8. Four years. Short courses of 6--8 weeks also recommended. (Complete four year Course of Study - see III B)

9. Not specified.

10. State Director of Vocational Education; and a State Supervisor of Agricultural Education. Monthly reports are required by the Supervisor from the instructors.

11. Some of the teacher-training work carried on is by the bulletin method, giving methods, references, questions, etc.

12. Not specified.

The North Carolina plan lays more than the usual stress on the school farm, recommending from 50 to 100 acres of land, stocked up with the best grade of animals etc.

"The failure of a teacher of Agriculture, who has the operation of a school farm, to provide a good garden, both Summer and Winter, should be considered just cause for withholding State and Federal appropriations."

Oregon

1. a) All day or department. b)Part-time or dull season classes. c) Evening classes, for men over 16 years of age.
2. Yes. "Land for experimental and instructional purposes."
3. $500 laboratory. $20 library initial expenditure.

   $100 annual fund at command of instructor for incidental expenses. $10.00 per annum per pupil for maintainance in addition to the $100 annual fund referred to.
4. Not specified.
5. 50% Community. 50% federal.
6. 6 months farm practice required. Home projects recommended. "In most cases, productive projects with reasonable assurance of a profit are most desirable". Practical work of class "D" required and class "B" recommended.
7. Yes. A minimum salary of $1200 per annum.
8. Four years.

   (Complete Suggested Course of Study on III B)

9. Two years practical farm experience. Graduate of four year agricultural course from a standard Agricultural College. His course must have included the following subjects: a) Soils, b) Farm Crops, c)Animal Husbandry, d)Horticulture, e) Rural Engineering, f) Farm Management. He must have 15 hrs. Education. He must have had practice teaching. (Director same standard.)

10. The Oregon State Agricultural College will make a formal transfer of the professor of Agricultural Education to the state board of vocational education to supervise the vocational work in agriculture.

11. The training of teachers will be done by the Oregon State Agricultural College which has conducted similar courses for five years.

This training will be under the supervision of the state board of vocational education.

The course of study will include fifty per cent of technical instruction in Agriculture, fifteen per cent of Agricultural Education subjects including practice teaching, 20% of related and allied subjects, 15% of approved electives.

The entrance requirements are two years practical farm experience plus high school graduation.

The graduates are certificated by the state board of education.

12. Yes.

The Oregon law is featured by the adequacy of the required financial backing of the agricultural instructor. The provision of transportation for a well equipped instructor plus the liberal maintainance fund should bring good results.

Oklahoma

1. High School Departments and State and District Agricultural schools of secondary grade. Part-time and Evening Classes.

2. Desirable to have at least one acre for experimental work.

3. Suitable room, library of at least $50, adequate laboratory equipment, and subscribe to at least 3 or 4 farm papers. $5.00 per pupil maintainance fee.

4. At least six.

5. State 1/6, Local Community 1/3, Federal Funds 1/2.

6. Yes. Type "B". At least 360 hours.

7. Yes.

8. Four year course for All Day school.
(For detailed Course of Study see III B)

9. Two years practical farm experience; 21 years of age; a graduate of standard four year Agricultural College carrying 120 semester hours of which at least 40 hours are strictly practical or technical, 12 hours allied subjects, and 15 hours of professional work including practice teaching.

10. State Vocational Director and Agricultural Supervisor. Qualifications of Agricultural Supervisor are the same as for Instructor plus at least two years successful teaching experience in Agriculture.

11. Teacher-training at A. and M. College at Stillwater, Oklahoma. Prerequisites to the course are (1) Two years practical farm experience, and (2) graduation from standard high school.
The course includes as a practical feature actual practice-teaching work for 75 hours in the secondary Agricultural school maintained in connection with the

college.

"Improvement of teachers in service is the function of the State Supervisor. He will require professional reading and reports in the form of theses from each vocational teacher in addition to attendance upon state and district conferences which may be called."

12. Yes.

South Dakota

1. High School departments, and state schools maintaining departments of secondary grade. Part-time and evening short courses.

2. Approved; but not required.

3. Suitable room, reference books, laboratory equipment, filing cases, subscription to farm journals, classified bulletins and filing cases. The initial cost of laboratory equipment to be not less than $500. At least $5.00 per pupil per year to be set aside for use of instructor for necessary materials.

4. If 25% of pupils are from farm homes, an initial enrollment of 10 pupils will be approved for aid. If that is not the case, 15 is the required number.

There must be at least 6 enrolled in each year of the course given state aid.

5. At present the state furnished approximately 30%, local community 20% and Federal funds 50%.

6. Project method of two types - school or class projects and individual projects. Class "B" type projects.

7. Yes.

8. Four years.
(For detailed course of study see III B)

9. Age 21 years. Graduate of standard four year course in Agricultural College, which course shall include at least 42 hrs. strictly technical or practical work in Agriculture, 18 hrs. in allied subjects, 12 hrs. Ag. Education, 3 hrs. Psychology, and 5 hrs. practice teaching of vocational Agriculture. At least two years practical farm experience, one of which must have been continuous.

10. The Vocational Board of Education through a representative must visit and inspect the work in each state-aid school at least once each quarter. They expect to have a Vocational Director soon.

11. The training of teachers shall be conducted in this state at the State College of Agriculture and Mechanic Arts at Brookings.

12. Yes.

Texas

1. Departments in High Schools, Vocational Agricultural Schools, part-time or evening classes for vocational agriculture.

2. Yes. A minimum of one acre. For Voc. Ag. Schools a minimum of 10 acres.

3. $200 for departments. $500 for Voc. Agricultural Schools.

4. Not specified.

5. 50% federal funds. 50% local funds. An appropriation was made by the state to guarantee good faith; and to be used only "in case of necessity to preserve the good name of the state".

6. Yes. Class "B" type of projects.

7. Yes. A minimum wage of $1200.

8. Four years of work. "50% of time to vocational work including instruction in Agriculture, demonstrations, supervised projects, and supervised study in Agriculture and Project work". Three bulletins prepared by their department (Bulletin 92-A Year's Course in General Agriculture, Bulletin 93-A Year's Work in Plant Production, Bulletin 94-A Year's Work in Animal Production) give some idea of the type of work expected. The making of the Course of Study, however, is left to the respective boards. They outline their proposed Course; and submit it to the State Board of Vocational Education with their application for approval.

(State Board of Education acts as Vocational Education Board.)

9. Must be a man, at least 21 years of age. Graduate of a standard Agricultural College or its equivalent. One full year's course in education. One-half year's teaching of Agriculture in a secondary school. Two years practical experience after 12th year.

"After July 1, 1921, eligibles for positions as teachers, supervisors, and directors of Vocational Agriculture shall have completed a four year's college course in Vocational Agricultural Educa-

tion. Candidates for admission to have 14 units of high school work. Such a course will provide for 144 hours work, at least 40 hours of which must be technical agriculture and from 15 to 24 hours professional training, including supervised practice teaching in secondary agriculture. Upon the completion of this course, a permanent teacher's certificate will be granted by the State Department of Education".

10. Have both a Director and Assistant Director of Vocational Agriculture.

11. The Agricultural and Mechanical College is selected for the training of white teachers, for colored teachers, the Prairie View Normal and Industrial Institute. (See par. 9.)

Frequent conventions of Vocational Agriculture teachers have been held; and comprehensive programs were carried out.

Committees were appointed to make special studies and reports on agricultural problems.

12. Yes. Board of Education must also provide clerical assistance, stationery and all necessary equipment before approval is granted by the State Board of Vocational Education.

Tennessee

1. High School Departments.
2. Not specified.
3. $250 of laboratory equipment, a separate room with movable chairs and tables, and an allotment by board of education of $2.00 per pupil per year for materials.
4. Not specified.
5. Federal funds 50%. State and local community 50%.
6. Yes. Reports on projects must be rendered to State Supervisor each month.
7. Yes.
8. Four years.
   (For complete Course of Study see III B)
9. Must be a graduate from a standard College of Agriculture. Must have had at least two years practical farm experience.
10. A State Director of Vocational Education and a State Supervisor of Agricultural Education.
11. The Instructor "must spend at least two weeks each year in professional improvement." Minimum salary

$1200 per year.

12. Not specified.

A feature of the Tennessee plan peculiar to that state, in so far as we have seen, is the requirement of monthly reports by the instructor to State Supervisor on each project.

A desirable feature of Mr. Clement's bulletin is a comprehensive bibliography of reference bulletins and books.

Utah

1. a) Part-time Agricultural Courses. b) Evening Schools. c) Short Dull Season Schools. d) High School Departments.

2. School farm mentioned in outline of courses; but is not stipulated as a requirement.

3. $250 to $500 with $200 additional for farm mechanics equipment. Suitable rooms and laboratory. $5.00 per pupil to be set aside by board each year for material.

4. Not specified.

5. 50% state. 50% Federal funds.

6. Yes. Type "B" of Home project. (Waived "in case of

necessity").

7. Yes.

8. From one to four years.

(For complete Course of Study seeIII B)

9. 2 years of practical farm experience. Must be 21 years of age. Must be graduate of standard Agricultural College with at least 48 hours of Agriculture, 18 hours in allied subjects, and 12 hours of professional work including 3 hours of practice teaching. Fitted for leadership in the community.

10. Supervisors of Agriculture shall meet the standards and qualifications of the Instructor of Agriculture. In addition they shall have had at least two years successful teaching or supervising of Agriculture. He shall assist in the establishment of new courses, supervise the work of the teachers, have charge of teacher-training, and make reports to the Director of Vocational Education.

11. The University of Utah has been designated to train teachers for Smith-Hughes work. Only men having the prerequisite practical experience are to be trained. It is recommended that the teacher be

allowed one month during the dull season to improve himself professionally. At least one week must be given the instructor for the purpose of visiting schools where the work is being offered.

12. Yes.

One feature peculiar to the Utah plan is their variety of Plans for the Supervised practice work. They require home projects; but provide four kinds of projects:

A. Individual ownership Method.
B. Individual lease Method.
C. Apprenticeship Method.
D. Home Employment Method.

Virginia

1. High School departments, part-time, and evening schools.

2. Yes. Five acres.

3. Suitable room, a minimum of $350 for laboratory equipment. Suitable cabinets, at least 35 reference books and 100 bulletins properly classified, subscribe for at least five farm journals, and have farm shop 30/50 equipped by at least $750. At least $5.00 per pupil per annum for maintainance.

4. Not fewer than 10.

5. State 50%. Federal fund 50%.

6. Yes. Class "A" type of instruction. "The vocational work shall be based on the home project".

7. Yes. Minimum salary $1500.

8. Four years for regular course.

   (For complete course of study see III B)

9. Two years of practical farming or "intimate contact" with such work. Graduate of standard four year course in Agriculture based on standard high school course. Sympathy with farm life.

10. State vocational Director and Agricultural Supervisor.

    The plan of supervision shall include:

    a) Improvement of teachers in service.
    b) Inspection of schools.
    c) Assistance in the establishment of new schools and classes.
    d) Preparation of special bulletins and other special literature.

11. Teacher-training at Virginia Polytechnic Institute.

    Each teacher to be given time for professional improvement. Improvement of teachers in service:

    1) Definite reports from local instructor to State Sup.

2) State and sectional meetings of teachers.
3) A period of professional improvement for teachers.
4) Co-operation between teacher-training institutions and state supervisory staff for co-ordination of teacher-training.

12. Not specified.

III. Studies of representative states.(Continued)

B. Detailed Suggestive Courses of the following states:

Arizona

California

Connecticut

Colorado

Kentucky

Montana

Michigan

Nebraska

North Carolina

Oregon

Oklahoma

South Dakota

Tennessee

Utah

Virginia

Arizona

Course of Study (45 Min. periods)

Period	1st yr.	2nd yr.	3rd yr.	4th yr.
1	Agr.Arith.	Animal Husbandry	Geometry	Soils & Horticulture
2	English	" "	(Rural Law (& Civics	"
3	Study)	Commercial Project	Agr. Chem.	Commercial Project
4	Am.History	" "	" "	" "
	Noon			
5	Agronomy	English	Farm Management	Applied Physics
6	"	Algebra	" "	" "
7	Commercial	Elective	(Commercial Pro- (ject	Agricultural
8	Project	"	" "	Biology

Note - Farm Management will include Farm Accounts and Farm Mechanics.

California

Course of Study

Subjects of Course	Units of Work: Four years	1st	2nd	3rd	4th
Applied Work (Special aid)					
Farm Projects, Farm Mechanics	8	2	2	2	2
Supplemental Subjects(Special aid)					
Farm English-------------------	½	½			
Farm Applications of Science---	2	½	½	½	½
" " of Mathematics--	1½	½	½	½	
Hygiene and Sanitation---------	½	½			
Farm Home, and rural home and community life--------------	½				½
Farm Economics-----------------	½				½
Other required academic subjects (No special aid allowed)					
English and Literature----------	1		½	½	
Citizenship---------------------	½		½		
Development of modern democracy and democracies-------------------	½			½	
Development of the United States--	½				½
Physical Education--------------	----------	----------	----------	----------	----------
Totals-----	16	4	4	4	4

Not less than three hours per day of each pupil's time must be devoted to applied work which shall include farm projects and the instruction appertaining thereto, and farm mechanics; and not less than three hours per day to supplemental and other academic work in class or in school.

Connecticut

Suggested Course of Study

(By an hour, in this course, is meant 60 minutes)

Freshman Yr.

(Animal Husbandry)		
Poultry Husbandry	Recitation	60 hours
Dairy Husbandry		
Swine Husbandry	Laboratory and	
Beef-cattle and sheep	field practice	200 hours
The farm horse	(Farm Enter-	
	(prises	400 hours

Shop Work

Farm construction and repair work in wood, concrete and metal -- Practice 200 hours

Sophomore Yr.

(Plant Husbandry)		
Farm Crops and Soils Management	Recitation	60 hours
Vegetable Crops and Soils	(Laboratory and	
Management	(field Practice	200 hours
Fruit Crops and Soils Management	Farm Enter-	
	prises	400 hours

Shop Work

Farm Construction and repair work in wood, concrete
and metal -- Practice 200 hours

Junior Yr.

(Farm Machinery and Buildings)
Mechanical devices and appliances of the farm; assembly and installation; building plans, lay-out and construction. Practice------------------ 400 hours
Farm Enterprises 400 hours

Senior Yr.

(Farm Management)
Studies of Farm Management of the region; Recitation and field study------130 hours
Economic organization of continued enterprises, years 1, 2 and 3 Enterprises 400 hours

Colorado

Suggested Course of Study

First Year

Vocational -- 180 minutes per day or 900 minutes per week.
Crop Production and Soils.
Farm Shop Work.
Project Work.

Non-Vocational -- two units.
English.
Elective.

Second Year

Vocational -- 180 minutes per day.
Livestock Production and Management.
Project Work.

Non-Vocational -- two units.
English.
Elective.

Third Year

Vocational -- 180 minutes per day
Farm Machinery, Motors, Tractors.
Choice of any two of the following:

- Dairying
- Poultry
- Vegetable Gardening
- Fruit Raising

Project Work.

Non-Vocational -- two units
English
Elective - work in civics and citizenship recommended.

Fourth Year

Vocational -- 180 minutes per day.
Farm Management and Accounting, Marketing Problems, Farm Surveys, Irrigation or dry land problems.
Rural Economics and Sociology
Project Work

Non-Vocational -- two units
Elective
Elective

Kentucky

Four Year Course of Study

First Semester	Second Semester
First Year	
English-Rhetoric and Composition	English-Rhetoric and Composition
Mathematics-Algebra	Mathematics-Algebra
Farm Crops	Horticulture
Agricultural Botany (in connection with Farm Crops and Hort.)	Farm Shop Work
Home Project Work	Home Project Work
Second Year	
English-Literature and Classics	English-Literature and Classics
Elective-(Mathematics or History)	Elective(Math. or History)
Animal Husbandry	Animal Husbandry
Economic Zoology	Economics Zoology. Dairying or Poultry
Home Project Work	Home Project Work
Third Year	
English-Literature and Classics	English-Literature and Classics
Elective(Math.History or Lang.)	Elective(Math.Hist. or Lang.)
Soil Physics	Soil Fertility
Agricultural Chemistry	Agricultural Chemistry
Home Project Work	Home Project Work
Fourth Year	
Elective-(Rural Economics and Sociology)	Elective(Rural Economics and Sociology)
Elective-(Amer.Hist. or Lang.)	Elective-Amer.Hist. or Lang.)
Farm Management	Farm Management
Physics of Agriculture or Agricultural Engineering	Physics of Agriculture or Agricultural Engineering
Home Project Work	Home Project Work

Montana

Course of Study

Vocational	Non-Vocational
First Year	
Live Stock Production and Management Farm Shop Work Project Work	Two units: English Elective
Second Year	
Crop Production and Soils Project Work	Two units: English Elective
Third Year	
Farm Machinery, Motors and Tractors Dairying Choice of any two: Poultry Vegetable Gardening Fruit Growing Project Work	Two units: English American History and Government
Fourth Year	
Farm Management and Marketing Problems, Farm Accounts, and Soil Surveys Rural Economics and Rural Sociology	Two units: English Industrial History

"All schools receiving aid must maintain each year a 'short course' of six weeks."

Michigan

Type Course of Study

First Year -- 9th Grade

Required

English
Algebra
Plant Life----½ year-50 min.class--100 min.Lab.2ds. & 3ds.
Carpentry-----½ " " " " " " " "
Farm Practice---- 30 minutes
Elective
Latin
History
Bookkeeping

Second Year -- 10th Grade

Required

English
Geometry
Farm Crops--½ year (same as above)
Horticulture ½ year(" " ") Farm Practice--30 minutes
Elective
Latin
History
Commercial Geography ½ year
Commercial Law -- ½ year

Third Year -- 11th Grade

Required

English
Chemistry
Animal Husbandry --50 min.class and 100 min.lab.2nds. & 3ds.
Farm Practice--------30 minutes
Elective
Algebra--½ year
Geometry--½ year
Elementary Economics

Fourth Year -- 12th Grade

Required

History and Civics
Physics
Soils -- (50) ----(100)
Farm Management and Farm Mechanics (50 and 100)
Farm Practice ----- 30 minutes
Elective
English
Sanitation and Hygiene

95 hours farm practice during year of nine and one-half months

400 minutes daily to Agriculture for each grade

Nebraska

Suggested Course of Study

Per. per Week	1st Semester	2nd Semester
	Freshman Year (A period is 45 Min. in length. A vocational subject must be offered) (for a double period on each day offered. Periods per week include study)	
10	English Grammar	English Composition
20	Animal Husbandry and Shop Work(Average 180 Minutes per day)	Animal Husbandry and Shop Work
	Supervised practice work (Home Project)	Supervised Practice Work
10	Electives: (4-6) Rural Civics (5-10)General Physical Science	Electives: (4-6) Farm Arithmetic (5-10)Agricultural Geography

Second Year

10	Rhetoric	Rhetoric
20	Crops, Soils, and Shop Work	Crops, Soils and Shop Work
	Home Project	Home Project
10	Electives:	
	(4-6) Agricultural Botany	(4-10) General History
	(4-10) General History	(4-10) Language
	(4-10) Language	(4-10) Mathematics
	(4-10) Mathematics	

Third Year

20 a) Dairying, b) Machines, Motors and Tractors, c) Poultry, d) Horticulture and advanced gardening, e) Entomology (180 minutes per day) Any two of the first four subjects suited to given section of the state. It is suggested that all take Entomology.

Home Project

20 Electives:

(4-10) Mathematics
(4-10) Language
(4-10) Advanced Physics

Fourth Year

20 Farm Management (Includes Farm Law, Leases, Accounting.)
Rural Economics and Sociology (Includes Community Civics and Rural Life.)
Home--Project.

20 Electives:

(4-10) Mathematics
(4-10) Language
(4-10) Chemistry
(4-10) American History and Civics

"The method of instruction shall combine in one class exercise, both practical work and the essential related work."

North Carolina

Course of Study

First Year

English - Five 45 Min. periods per week
Mathematics " " " " " "
Science [1] " " " " " "
Agriculture - Five double periods per week. (Crops and Soils)
Practical work- " " " " " (Farm Projects or school farm)

Second Year

English - Five periods per week
History - " " " "
Mathematics -" " " "
Agriculture -Five double periods per week (Animal Husbandry)
Practical Work " " " " " (School farm or projects)

Third Year

English - Five periods per week
History - " " " "
Science(Chemical or Physical) five periods per week[1]
Agriculture-Five double periods per week
(Farm Mechanics and Horticulture)
Practical Work Five double periods per week. (School farm or projects)

Fourth Year

English - Five periods per week
Economics -" " " "
Civics (½) " " " "
Hygiene and Sanitation ½
Agriculture - Five double periods per week
(Farm Management, Farm Accounting and Farm Engineering)
Practical Work Five double periods per week.(School Farm or projects)

[1] Science subjects have double laboratory periods twice each week.

Oregon

Course of Study (Suggestive)

First Year

Subject	Unit
Soils and Crops	1
Home Project (Crop Production)	1
English	1
General Science	1

Second Year

Subject	Unit
Animal Husbandry	1
Home Project (Animal Husbandry)	1
English	1
Mathematics	1

Third Year

Subject	Unit
Horticulture	1
Home Project (Fruit Growing or Vegetable Growing)	1
English	$\frac{1}{2}$
History	$\frac{1}{2}$
Biology or Chemistry	1

Fourth Year

Subject	Unit
Farm Management	$\frac{1}{2}$
Rural Engineering	$\frac{1}{2}$
Home Project (Farm Management and Rural Engineering)	1
English	$\frac{1}{2}$
Civics	$\frac{1}{2}$
Rural Economics and Rural Sociology	1

At least fifty per cent of the time of the student must be spent in vocational agriculture. The other subjects in

the course should have a close relation to agriculture and rural life.

Oklahoma

Courses of Study

Part-time and Evening Classes

"Part-time and Evening Classes may be provided as short intensive courses for persons over sixteen years of age who are actually employed in farm work; and each student in such course shall be required to carry on a supervised practice for six months as provided for in section 7 B. The work shall consist of class and laboratory work and demonstrations."

All Day School

First Year

Vocational
900 minutes per week, including:
Crop Production and Soils
Farm Shop Work (Wood)
Project Work

Non-Vocational -- 2 units
English
Elective

Second Year

Vocational
900 minutes per week
Live Stock Production and Management
Farm Shop Work (Black Smithing, Concrete, etc.)
Project Work

Non-Vocational -- 2 units
English
Elective

Third Year

Vocational
900 minutes per week
Farm Machinery (Motors, Tractors, etc.)
Elective of any two of following:
Dairying, Poultry, Vegetable Gardening, Fruit Growing, Cotton.
Project Work

Non-Vocational -- 2 units
English
Elective

Fourth Year

Vocational
900 minutes per week
Farm Management (Farm Accounts and Surveys, Marketing Problems, Soils Management and Farm Surveying
Rural Economics and Sociology
Project Work

Non-Vocational -- 2 units
English
Elective

One year courses will be approved as a beginning but must be increased to three or four year courses by second year. No course under three years will be approved for aid unless the entire time is devoted to Vocational Agriculture.

South Dakota

Suggestive Course of Study

First Year

Vocational -- 180 minutes per day or 900 minutes per week
Crop Production and Soils
Farm Shop Work
Project Work

Non-Vocational -- 2 units
English
Elective

Second Year

Vocational -- 180 minutes per day
Livestock Production and Management
Project Work

Non-Vocational -- 2 units
English
Elective

Third Year

Vocational -- 180 minutes per day
Farm Machinery, Motors, Tractors
Choice of any two of the following:
Dairying
Poultry
Vegetable Gardening
Fruit Growing
Project Work

Non-Vocational -- 2 units
English
Elective -- work in Citizenship recommended

Fourth Year

Vocational -- 180 minutes per day
Farm Management and Accounting, Marketing Problems, Farm Surveys, etc.
Rural Economics and Sociology
Project Work

Non-Vocational -- 2 units
Elective
Elective

Tennessee

Course of Study

First Year

English (Grammar, Composition, Classics)
First Year Mathematics (Arith. and Algebra)
Biology, including Human Physiology
Agriculture -- Field Crops
Project Work

Second Year

English (Composition and Literature)
Algebra Completed
Animal Husbandry (Breeding, Breeds, Feeding and management of stock)
Botany and Zoology or Physiography
Project Work

Third Year

English (Composition and Literature)
Chemistry
Farm Carpentry: Elementary Economics
Horticulture and Farm Dairying
Project Work

Fourth Year

English (Composition and Literature)
American History and Civics
Physics
Farm Management and Agricultural Engineering
Project Work

Project work must be done by the pupil on a useful and productive basis for six months in the year under the supervision of the teacher of Agriculture.

Utah

Course of Study (Suggestive)

First Year

Vocational - 180 minutes per day or 900 minutes per week
90 minutes -- Crop Production and soils
90 minutes -- (a) Farm Mechanics
(b) Home supervised practice work
Non-Vocational -- 2 units
English
Elective

Second Year

Vocational -- 180 minutes per day
90 minutes -- Livestock Production and Management
90 minutes -- (a) Farm Mechanics
(b) Home Supervised practice work

Non-Vocational -- 2 units
English
Elective

Third Year

Vocational -- 180 minutes per day
(a) Choice of any two of the following:
Dairying
Poultry
Vegetable Gardening
Fruit Growing
(b) Farm Machinery, motors, tractors

A minimum of 90 minutes per day of (a) or (a) combined with (b)
Non-vocational -- 2 units
English
Elective -- Work in Civics and Citizenship recommended

Fourth Year

Vocational - 180 minutes per day
Choice of any two of the following:
Farm Management and Accounting, marketing problems, farm survey
Irrigation and Dry Farming Problems
Rural Economics and Sociology
Project Work, a minimum of 90 minutes consecutively

Non-Vocational -- 2 units
Elective
Elective

Farm Shop work is required as separate work during the first two years. Thereafter it may be considered as a part of project work when an integral part of that work.

Virginia Day School

Course of Study

First Year -- 8th Grade

Non-Vocational
English - 5 - 40 minute periods------------------------1 unit
Algebra - 5 - 40 minute periods------------------------1 unit
General Science-3 - 40 and 2 - 80 minute periods------1 unit

Vocational
Plant Production - 5 - 80 minute periods--------------1 unit
Farm Shop Work - 2 - 80 minute periods
Supervised Project --Average of 5 hours- 40 minutes for nine months----------------------------------½ unit

Second Year -- 9th Grade

Non-Vocational
English - 5 - 40 minute periods------------------------1 unit
Plane Geometry - 5 - 40 minute periods-----------------1 unit

Economic Geography - 5 - 40 minute periods--------1 unit

Vocational

Animal Husbandry - 5 - 80 minute periods----------1 unit
Farm Shop Work - 2 - 80 minute periods
Farm Project - Average of 5 hours 40 minutes ------½ unit

Third Year - 10th Grade

Non-Vocational

English - 5 - 40 minute periods-------------------1 unit
Farm Arithmetic and Elementary Bookkeeping - 5
40 minute periods ------1 unit
Human Biology - 3 - 40 and 2 - 80 minute periods--1 unit

Vocational

Horticulture and Field Crops - 5 - 80 minute per.-1 unit
Farm Shop Work - 2 - 80 minute periods
Supervised Project - 5 hours 40 minutes average --½ unit

Fourth Year - 11th Grade

Non-Vocational

English - 5 - 40 minute periods -------------------1 unit
History and Civics - 5 - 40 minute periods--------1 unit
Chemistry or Physics - 3 - 40 minute and 2 - 80
minute periods-------------------1 unit

Vocational

Rural Engineering, Farm Mechanics, Farm Management, and
Rural Economics - 5 - 80 minute periods-----------1 unit
Farm Shop Work - 2 - 80 minute periods
Supervised project - Average 5 hrs., 40 min--------½ unit

Total academic credits-----16 units
Four years Supervisor Project work (Av.5hrs. 40 min)
2 units

Part-time Classes

Agriculture - 90 minutes per day for 12 weeks
Farm Shop Work - 90 minutes per day for 12 weeks
Project Work - 90 minutes per day for six months
Farm Arithmetic - 40 minutes per day for 12 weeks

English - 40 minutes per day for 12 weeks

Evening Classes

Agriculture - 90 minutes per day for 8 weeks
English - (Study of Farm Journals) -40 min. per day for 8 weeks
Project work - 90 minutes per day for six months

IV. Summarized impressions and recommendations, based upon a comparative study of methods of various states.

On old Massachusetts Hall, below a bust of James Russel Lowell, there appears this inscription:

> "I, Freedom, dwell with
> Knowledge: I abide
> With men by Culture
> Trained and fortified."

It has taken many generations to realize that this principle applies as directly to the farmer as to the urban resident. It was not long after the Civil War that the Morril Act was passed by Congress, establishing the Agricultural Colleges. Since that time we have had six other acts enacted for the express purpose of encouraging education for the farmer. These were the Hatch Act in 1884,providing for experiment stations, the second Morril Act in 1890, giving additional aid to Agricultural Colleges, the Adams Act in 1906 for the encouragement of research, the Nelson Amendment in 1908, giving more aid to land-grant colleges (Part of this

money could be used in training teachers of agriculture), the Smith-Lever Act in 1914 furthering the extension service, and the most recent legislation for the advancement of Vocational Agricultural Education embodied in the Smith-Hughes Act for the promotion of Vocational Education.

These various acts for the encouragement of agricultural education in one form or another were enacted because of a growing realization of the necessity of checking the movement from farm to city; and also to assist in developing more intelligent agricultural methods so that greater production of food stuffs for our increasing population would result. Since 1880 there has been a marked decrease in the proportion of the American people engaged in farming as an occupation. This proportion declined from 44.4 per cent in 1880 to 32.9 per cent in 1910. Education, in order to accomplish the results hoped for, must be reorganized. In order to function, the educational program for the farm youths must be adjusted to the needs of his occupation. We are just coming to a realization of the fact in this country that as other conditions, customs, and methods change from time to time, so also the educational

money could be used in training teachers of agriculture), the Smith-Lever Act in 1914 instituting the extension service, and the most recent legislation for the advancement of Vocational Agricultural Education embodied in the Smith-Hughes Act for the promotion of Vocational Educatio[illegible]

These various acts for the encouragement of agricultural education in one form or another were enacted because of a growing realization of the [illegible] of the [illegible] ing the movement from farm to city and [illegible] developing more intelligent agricultural methods so that greater production of food stuffs for our increasing population would result. Since 1870, there has been a marked decrease in the proportion of the American people engaged in farming as an occupation. This proportion declined from 44.4 per cent in 1870 to 33.2 per cent in 1910. [illegible] tion, in order to accomplish the results hoped for, must be reorganized. In order to function, the educational program for the farm youths must be adjusted to the needs of his occupation. We are just coming to a realization of the fact in this country that as other conditions, customs, and methods change from time to time, so also the educational

methods and content must necessarily be altered in order to be of practical value. Along this line of thought, William C. Redfield, Secretary of Commerce says:

> "We are just beginning to realize that by the failure of some phases of our educational systems to meet the living needs of living boys and girls, we are permitting them to enter a sort of death in life which is having most hurtful effects on our country. Our complacency over the value of the common school to our people is being rudely disturbed, for many if not most of our young people emerge from that same common school quite without adjustment to the daily life they must thereafter lead, and almost if not altogether without the training fitting them for the workaday world in which they must live."

It is in an attempt to promote the reorganization of our educational system upon a practical basis that the Smith-Hughes Act is now in effect. The law places the Federal administration of the act in the hands of a Federal Board for Vocational Education, composed of seven members as follows: the Secretary of Agriculture, Secretary of Commerce, Secretary of Labor, United States Commissioner of Education, and three other citizens appointed by the President. These three members are chosen so that the agricultural interests, the manufacturing and commercial interests, and the labor

interests are each represented. The Federal Board holds State boards accountable for the proper administration of the act and supervision of instruction under general regulation laid down by Federal Board.

Following is a brief summary of some of the findings of a special study of the administration of the act in twenty-three states.

1. All states provide for vocational agricultural departments in high schools. A few, like Georgia and Massachusetts have state or county agricultural schools.

2. Twelve states require that the school districts secure a plot of ground for agricultural work. The sizes of these plots vary from the one acre experiment plot in Oklahoma to the two-hundred acre farm for the Georgia state (white) agricultural schools.

3. Fifteen states set a definite minimum initial expenditure for laboratory equipment. The median amount is $500.00 The average is $440.00

4. Eight states require a definite minimum enrollment in the course as a condition for reimbursement. This minimum varies from six in Oklahoma to fifteen in New York. The median is ten. The average is ten.

5. Fifteen states require a definite maintenance allotment for the use of the instructor in purchasing necessary supplies. The amount is furnished by the local district; and varies in amount from $2 per pupil per year to $10 per pupil per year. The median is $5. The average is $4.50

6. Seven states match the Federal funds with State funds dollar for dollar. Three states add 1/6 to the 1/2

of the Federal appropriation, thus requiring the local district to pay 1/3 of instructors' salaries. One state adds 25%, leaving 25% for the local district to pay. South Dakota expects to eventually pay 50%; but at present is paying 30%, leaving 20% to the local community.

7. Seven states require that the instructor be at least 21 years old; and several southern states prescribe that the instructor be a man. One state sets the age minimum at 23 years. All states require that the instructor be a graduate from a standard agricultural college or its equivalent. Sixteen states prescribe that the instructor must have had not less than two years of practical farming experience. Two states require three years of practical farming.

8. Six states require at least two years of successful experience in teaching agriculture of the State Supervisor in addition to the preparation expected of an instructor. One state prescribes five years teaching experience; and another state requires three.

9. Four states prescribe that the instructor be allowed one month for professional improvement each year. Five states would give "a period" for vacation and professional improvement. One state would give him two weeks; and another state would allow him all of one week for professional improvement each year.

10. Twenty-two states recommend a four-year course of study. One state recommends a two-year course. Several states feature the short-course and evening schools.

11. Twelve states definitely require the local district to provide the instructor with transportation for the purpose of giving the home project work proper supervision.

12. Twenty states require the practice work to be done by the project method. Missouri "recommends" the class 'A' project; and Oregon requires six months of

"farm practice", but recommends the class 'B' project. Thirteen states require the class 'B' project method of field work. Seven states prescribe the class 'A' project method of field practice.

After a study of the experiences and the methods of the various states, certain desirable features of administration assume prominence. While the Federal Board is undoubtedly wise in leaving the details of administration (and especially sensible in regard to the course of study) to the individual states, yet there are certain desirable methods that should be practiced in every state. All non-essentials should be eliminated from the courses of study. The instruction should conform to the spirit as well as to the letter of the law. A few courses still retain much of the old formal subjects. There should be no waste motion in the Smith-Hughes instruction and each subject of the course should have a definite value to the student.

The agricultural instructor should have one month of vacation each year, and one month for definite professional improvement of which he should be required to make a full report. Each state should require the local district to provide suitable transportation for the instructor who supervises project work. This would tend to insure efficient

supervision. Too much stress cannot be placed on the importance of the type of instruction which groups the allied subject matter about the individual project. Seven states already are meeting with success by the use of this method. Some states still approve of plans of instruction that permit the supplemental subjects to be taught without relation to the individual project. This procedure loses the opportunity of giving practical motivation to the supplemental subjects by correlating them with the project that the student is conducting at home. The home project in every case should be conducted on a practical business basis, a careful account being kept of all expenses. The youth's experience in leasing his ground, buying his stock, poultry, seed, or whatever his project requires, the accurate figuring and recording of expenses and earnings, and the disposal to the best advantage of his produce at the finish, gives an ample field from which to select material for work in the supplemental subjects. This plan, of course, requires that the instructor be in close touch with the student and his project. It is for this reason that Iowa prescribes that, with 10 in a class, the instructor

give them his full time.

One element in arousing interest in the project method of instruction is because they are sources of income to the student; and often enable him to secure an education largely by his own efforts. An unusually successful project from the financial standpoint was that of a boy at Petaluma, California, who cleared a net profit of $1600 on a project involving 3,000 young chicks. Usually the projects do not net any such sum. The common experience, however, is to make a profit varying from $200 to $500. An interesting project was developed in Colorado by a boy who took a tractor as his project. He operated it throughout the season, doing work on his home farm and neighboring farms. A careful record was kept of hours of work each day, work accomplished in current price terms, initial and final value of the tractor, cost of fuel and repairs, wages of operator; and also the different wages earned by the tractor at the various kinds of work. The net gain for the season was $368.92 It is, of course, true that some projects are not financial successes. The financial failure may be the most successful as a lesson of value, however, and should not necessarily be classed as a failure. The project method is here to stay. It gives a real meaning to education.

V. Suggestive Four Year Course of
Study for day school.

(Based on impressions received, in part, from this study)

First Year

Subject	Units
Project Work, including Practical Farm Mechanics	2
Farm Arithmetic	½
Business English, as related to farm transactions	½
Hygiene and Sanitation	½
General Science	½

Second Year

Project Work, including Practical Farm Mechanics	2
Combination of Algebra and Geometry, practical applications	½
Elements of Chemistry	½
Appreciative Literature, selected from American and English	½
Political Development of the United States as a Democracy	½

Third Year

Project Work, including Practical Farm Mechanics	2

Farm Accounting and value and method of keeping farm records---------------------------------- ½

Applied Chemistry of Soils and method of rebuilding soil---------------------------------- ½

Agricultural and Industrial Development of the United States---------------------------------- ½

English and Public Speaking, (How to organize; and deliver talks and demonstrations, practice in parliamentary law, etc.------------ ½

Fourth Year

Project Work, including Practical Farm Mechanics--- 2

Electricity and principles of Mechanics applied to farm machinery, motors, tractors, possible uses of Electricity on farms, etc.------------ ½

Rural Home and Community Life------------------------ ½

Farm Management and Marketing Methods-------------- ½

Practical Citizenship------------------------------- ½

(Physical Education throughout course)

In order to be of maximum educational value, the project should be selected from a different line of agricultural work each year. This plan should assist the student in choice of type of farming to adopt as permanent vocation.

VI. California

A. Act of Adoption. Acceptance of Act.

"1. The California Legislature in an act accepted the provisions and benefits of the Federal Act for vocational education. The Governor approved the same May 29, 1917.

2. The State Treasurer is designated custodian of the funds.

3. The California Act provides for the acceptance of the funds for:

a. The payment of salaries of teachers of trade, home economics, and industrial subjects.

b. The payment of salaries of teachers, directors,and supervisors of agricultural subjects.

c. The maintenance of courses, classes, or schools for training--

(1) Teachers of trade and industrial subjects.
(2) Teachers, directors, and supervisors of agricultural subjects.
(3) Teachers of home economics.

4. In accepting the provisions and benefits of the Federal Act, the State Act provides for state appropriations which shall equal all Federal apportionments made to the State of California. The

> Federal funds and the State funds combined constitute the vocational education fund, which fund is created by the act. The entire fund, including Federal and State moneys, is governed by the provisions of the Federal Act and by the regulations of the State Board, acting under the provisions of said act."

The active administration in the State of California is under a Commissioner of Vocational Education, assisted by a State Supervisor of Agricultural Education, a State Director of Vocational War Work who is now in charge of industrial education, and by five Supervisors and Directors of Teacher-Training - one of Home Economics, two of Agriculture, and two of Trades and Industries.

B. Method of procedure in establishment of vocational courses in agriculture in California under the Smith-Hughes Act.

The following extract from Bulletin No. 23 A, California Board of Education indicates the proper procedure in establishing standard vocational courses in agriculture.

> "High School boards applying for authority to establish and maintain vocational courses in agriculture, under the provisions of the Federal and State Vocational Education Acts, must submit, on blanks

furnished by the State Board of Education, such information as may be desired, including the following:

1. Approximate area in square miles of:

   a. High school district.
   b. Outside territory served by high school.

2. Approximate acres under cultivation in:

   a. High school district.
   b. Outside territory served by high school.

3. Approximate acres of grazing land in:

   a. High School district.
   b. Outside territory served by high school.

4. Principal occupations of people in order of importance -- agricultural, commercial, mining, industrial and trade, etc.

5. Character of principal agricultural occupations in order of importance -- stock raising, dairying, poultry raising, field crops, horticulture, viticulture, etc.

6. Principal agricultural products of community in order of importance -- hogs, sheep, beef or dairy stock, dairy products, horses, turkeys, chickens, alfalfa, hay, wheat, oats, barley, rice, corn, hops, cotton, potatoes, onions, sugar beets, beans, watermelons, cantaloupes, walnuts, almonds, olives, peaches,

apricots, plums, prunes, pears, apples, figs, grapes, raisins, orgnges, lemons, pomeloes, berries, garden truck, etc.

7. Enrollment of pupils in all elementary schools for the preceding school year in:

   a. High school district.
   b. Outside territory served by high school.

8. Enrollment in each grade of high school for preceding year.

9. Number of boys in district over 14 years and less than 18 years of age who are not attending school.

10. Number of girls in district over 14 years and less than 18 years of age who are not attending school.

11. Number of persons who have expressed desire to take advantage of the course.

12. A description of the school lands, shops, laboratories, classrooms, and equipment that will be available for the use of pupils."

C. In order to be eligible for state aid, high schools must maintain one or more standard vocational courses in agriculture. To be rated as a standard course it must --

1. Have been authorized by the State Board of Education to establish the course.

2. Be maintained in accordance with the regulations of the State Board of Education, which regulations are in conformity with policies and standards of the Federal Board of Vocational Education.

3. It must provide satisfactory supervision of project work throughout the summer months, as well as during school year.

4. Be officially approved by the State Board of Education, after being inspected, as conforming to all requirements.

If a standard course is maintained, the high school district may expect to be reimbursed by the State Board as follows:

"For the first teacher unit of instruction -not to exceed-$1000
For the second teacher unit of instruction-not to exceed- 700
For the third teacher unit of instruction -not to exceed- 500
For the fourth teacher unit of instruction-not to exceed- 300

Provided, that the Board will in no instance reimburse any such district in a sum which shall exceed one-half of the amount paid as compensation for instruction in the required applied and supplemental subjects of said course or courses."

A teacher unit is defined as six sixty-minute hours of teaching and study supervision for thirty-six weeks. Necess-

ary care must be given to pupil's projects during vacation periods. "A proportionate reimbursement will be made for a fractional part of a teacher unit of instruction." This financial aid will be given only where teachers of applied work are paid, at least, $1500, and teachers of supplemental subjects, at least ,, $1200. Reimbursements for preceding year are paid by the State Board of Education during the first quarter of fiscal year. If funds available fall short of needs, aid will be pro-rated.

D. Professional aid to be expected.

1. Teacher-Training course at the University of California.

2. Assistance and co-operation of the University Extension Service.

3. Sectional teachers' meetings.

4. Supervisory help of the State Department of Vocational Education. Those immediately concerned with the work in Vocational agricultural Education are:

Edwin R. Snyder, Commissioner of Vocational Education

W. G. Hummel, Supervisor and Director of Teacher-Training

Samuel H. Dadisman, Supervisor and Director of Teacher-Training

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